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USPTO - Examiner Winnie S. Yip Group No. 3637	571-273-8300	703-308-2491

FROM: Jacquelyn Campbell - 2279

RE: U.S. Patent Application No. 09/890514  
Weight Bearing Systems and Methods Relating to Same  
Darrell Meyer

CLIENT/MATTER NO.: 100344.0007US1	NUMBER OF PAGES, INCLUDING COVER: 23
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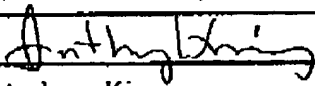
Application Number	09/890,514
Filing Date	October 12, 2001
First Named Inventor	Darrell Meyer
Art Unit	3637
Examiner Name	Yip, Winnie S.
Attorney Docket Number	100344.0007US1

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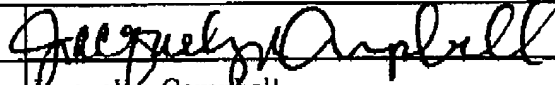
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Firm Name	Rutan & Tucker, LLP		
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Printed name	Anthony King		
Date	Aug 08, 2005	Reg. No.	49063

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

EXAMINER: Winnie S. Yip.  
APPELLANT: Darrell Meyer  
SERIAL NO. 09/890,514  
FILED: October 12, 2001  
FOR: Weight Bearing Systems and Methods Relating to Same  
ART UNIT 3637

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Attention: Board of Patent Appeals and Interferences

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NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**

This brief, transmitted in triplicate, is submitted in response to the Notification of Non-Compliant Appeal Brief issued on July 11, 2005. Please charge any required fees or credit any overpayment to our deposit account number 502191.

This brief contains the following items under the headings in the order here indicated:

- I. Real Party In Interest
- II. Related Appeals And Interferences
- III. Status Of Claims
- IV. Status Of Amendments
- V. Summary Of Claimed Subject Matter
- VI. Grounds Of Rejection To Be Reviewed On Appeal
- VII. Argument
- VIII. Claims Appendix

Application No. 09/890,514  
Attorney Docket No. 100344.0007US1

1

**I. Real Party In Interest**

The real party in interest is Darrell Meyer.

**II. Related Appeals And Interferences**

There are no other appeals or interferences in this matter known to appellant.

**III. Status Of Claims**

There are 16 claims in this case. The claims on appeal are 29-40, 42 and 57-58.

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Claim amendments were made in the response to the May 19, 2004 non-final Office Action.

**V. Summary Of Claimed Subject Matter**

Claim 29 is the only independent claim involved in this appeal. Claim 29 is generally directed to a weight bearing element (Fig. 1, 10) having a span greater than its height. The weight bearing element comprises a substantially open and flat web (Fig. 1, 200) having a plurality of stabilizing members (Fig. 1, 210) and at least two chords (Fig. 1, 100). Each of the chords defines a perimeter having a polygonal cross-sectional shape with at least 5 mutually non-coplanar sides (Fig. 2, 110, 120A, 120B, 130A, and 130B), at least two (Fig. 2, 120A, and 120B) of which are substantially parallel to the web. The web spans a distance between the two chords and at least one of the stabilizing members has a punched out opening or a flange (Fig. 1, 220) protruding outward the plane of the flat web, the opening or flange extending across more than half but less than all of the distance between the two chords.

**VI. Grounds Of Rejection To Be Reviewed On Appeal**

The ground of rejection presented for review is the rejection of claims 29-37, 39-40, 42, and 57-58 under 35 U.S.C. § 103 as being obvious over Buecker (U.S. Pat. No. 6,131,362) in view of Bodnar (U.S. Pat. No. 5,207,045) (Final Office Action ¶3).

## **VII. Argument**

**First ground of rejection; Obviousness over Buecker in view of Bodnar. All claims are argued together.**

**The Examiner has not provided suggestion or motivation to combine reference teachings**

In the response to the Office Action filed August 19, 2004, the applicant stated the position that the Examiner had not provided the motivation to combine references. In the Office Action dated November 16, 2004, the Examiner provided the alleged motivation as follows:

"Bodnar and Buecker both teach a weight bearing element having substantial limitation as claimed...";

"...both teach the weight bearing element can be used to joint with other beams, either to be used as a stud..."; and

"...the beams of Bodnar and Buecker are capable used in same art and are capable to be combined as a joist to solve the same problem as claimed."

The applicant fails to see the motivation in those statements. The first statement, "Bodnar and Buecker both teach a weight bearing element having substantial limitation as claimed...", may be relevant to an issue of whether the references are analogous art, but it is irrelevant to the issue of suggestion or motivation to combine. "The test for an implicit showing [of motivation to combine] is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab 217 F.3d 1365, 1370 (Fed. Cir. 2000). Merely stating that the references "both teach a weight bearing element" is not suggestion or motivation to combine because the Examiner has not articulated what the combined teachings, general knowledge, or nature of the problem would have suggested to one of ordinary skill in the art.

The second statement, "...both teach the weight bearing element can be used to joint with

other beams, either to be used as a stud..." is incomprehensible, but no matter how it is interpreted, it does not provide suggestion to combine references.

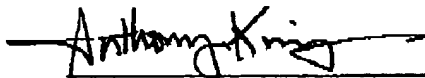
The third statement, "...the beams of Bodnar and Buecker are capable used in same art and are capable to be combined as a joist to solve the same problem as claimed" also does not provide any suggestion to combine. As discussed above, stating that references are capable of being used in the same art may have relevance to an analogous art issue, but it has no relevance to a suggestion to combine issue. The examiner also states that the references are capable of being combined as a joist. The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination. In re Mills, 916 F.2d 680. Moreover, the teachings of Bodnar do not address the nature of the problem being solved by the present claims. The present claims are directed to a weight bearing element (a joist) with a substantially open yet strong web between two chords. The joist is designed to support the weight of horizontal structures. Bodnar, on the other hand, is directed to solving the problem of the "thermal bridge effect" (column 7, lines 54-59) as it relates to stabilizing pre-cast concrete walls. In the present claims, the web supports receives all of the weight of the horizontal structure it is supporting. In Bodnar, the web merely contributes to reduction of the thermal bridge effect while providing stability to keep the wall upright. In attempting to solve the problem being presented by the present specification, one would not look to Bodnar were it not for hindsight.

### **Conclusion Of Argument**

In rejecting the presently pending claims, the Office improperly combined references and failed to provide any reasonable suggestion for doing so. Therefore, the rejection of independent claim 29 and all of its dependent claims should be withdrawn.

Respectfully submitted,

Dated: July 20, 2005



Anthony S. King  
Reg. No. 49,063  
Attorney for Appellant

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Costa Mesa, CA 92626  
Tel: 714-641-5100  
Fax: 714-546-9035

### VIII. Claims Appendix

29. A weight bearing element comprising:
- a substantially open and flat web having a plurality of spaced stabilizing members;
  - and
  - at least two chords wherein each cord defines a perimeter having a polygonal cross-sectional shape with at least 5 mutually non-coplanar sides, at least two of which are substantially parallel to the web, each of the two chords being connected to the web at least one vertex of an angle of the chord,
- wherein the web spans a distance between the two chords, and at least one of the plurality of spaced stabilizing members comprises a punched out opening or a flange protruding outward the plane of the flat web, the opening or flange extending across more than half but less than all of the distance between the two chords; and
- wherein the weight bearing element has a span that is greater than its height.
30. The weight bearing element of claim 29 wherein the stabilizing members are formed from punched out openings, and the punched out opening comprise at least forty percent of the area of the web.
31. The weight bearing element of claim 29 wherein the stabilizing members are flanges.
32. The weight bearing element of claim 31 wherein sets of the flanges are coupled together to form trapezoidal stabilizing members projecting outward from the web.
33. The weight bearing element of claim 31 formed by roll forming a single sheet of material into the web and two chords.
34. The weight bearing element of claim 31 wherein the chord is fabricated from a single continuous sheet.
35. The weight bearing element of claim 29 formed by roll forming a single sheet of material into the web and two chords.



36. The weight bearing element of claim 29 wherein the chord is fabricated from a single continuous sheet.
37. The weight bearing element of claim 29 wherein the cross section of at least one of the two chords, excluding any portion in parallel with and connected to the web, has a shape of a regular or irregular pentagon.
38. The weight bearing element of claim 29 further comprising a fill material in the cavity of at least one of the two chords.
39. The weight bearing element of claim 31 wherein the two chords are substantially parallel chords coupled to opposite sides of the web.
40. The weight bearing element of claim 39 wherein the chord further comprises at least 5 planar sides, each side corresponding to one side of the closed multi-sided figure of the cross-sectional shape of the chord.
42. The weight bearing element of claim 31 wherein the chord has a height and a width, such that the height is greater than the width.
57. The weight bearing element of claim 29 wherein the element is formed from a continuous piece of at least 20 gauge steel.
58. The weight bearing element of claim 29 wherein at least a portion of the flange extends in a direction normal to the span.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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APPELLANT: Darrell Meyer  
SERIAL NO. 09/890,514  
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**VI. Grounds Of Rejection To Be Reviewed On Appeal**

The ground of rejection presented for review is the rejection of claims 29-37, 39-40, 42, and 57-58 under 35 U.S.C. § 103 as being obvious over Buecker (U.S. Pat. No. 6,131,362) in view of Bodnar (U.S. Pat. No. 5,207,045) (Final Office Action ¶3).

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other beams, either to be used as a stud..." is incomprehensible, but no matter how it is interpreted, it does not provide suggestion to combine references.

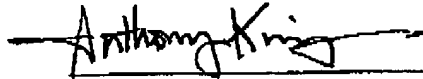
The third statement, "...the beams of Bodnar and Buecker are capable used in same art and are capable to be combined as a joist to solve the same problem as claimed" also does not provide any suggestion to combine. As discussed above, stating that references are capable of being used in the same art may have relevance to an analogous art issue, but it has no relevance to a suggestion to combine issue. The examiner also states that the references are capable of being combined as a joist. The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination. In re Mills, 916 F.2d 680. Moreover, the teachings of Bodnar do not address the nature of the problem being solved by the present claims. The present claims are directed to a weight bearing element (a joist) with a substantially open yet strong web between two chords. The joist is designed to support the weight of horizontal structures. Bodnar, on the other hand, is directed to solving the problem of the "thermal bridge effect" (column 7, lines 54-59) as it relates to stabilizing pre-cast concrete walls. In the present claims, the web supports receives all of the weight of the horizontal structure it is supporting. In Bodnar, the web merely contributes to reduction of the thermal bridge effect while providing stability to keep the wall upright. In attempting to solve the problem being presented by the present specification, one would not look to Bodnar were it not for hindsight.

#### **Conclusion Of Argument**

In rejecting the presently pending claims, the Office improperly combined references and failed to provide any reasonable suggestion for doing so. Therefore, the rejection of independent claim 29 and all of its dependent claims should be withdrawn.

Respectfully submitted,

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**VIII. Claims Appendix**

29. A weight bearing element comprising:
- a substantially open and flat web having a plurality of spaced stabilizing members;
  - and
  - at least two chords wherein each cord defines a perimeter having a polygonal cross-sectional shape with at least 5 mutually non-coplanar sides, at least two of which are substantially parallel to the web, each of the two chords being connected to the web at least one vertex of an angle of the chord,
- wherein the web spans a distance between the two chords, and at least one of the plurality of spaced stabilizing members comprises a punched out opening or a flange protruding outward the plane of the flat web, the opening or flange extending across more than half but less than all of the distance between the two chords; and
- wherein the weight bearing element has a span that is greater than its height.
30. The weight bearing element of claim 29 wherein the stabilizing members are formed from punched out openings, and the punched out opening comprise at least forty percent of the area of the web.
31. The weight bearing element of claim 29 wherein the stabilizing members are flanges.
32. The weight bearing element of claim 31 wherein sets of the flanges are coupled together to form trapezoidal stabilizing members projecting outward from the web.
33. The weight bearing element of claim 31 formed by roll forming a single sheet of material into the web and two chords.
34. The weight bearing element of claim 31 wherein the chord is fabricated from a single continuous sheet.
35. The weight bearing element of claim 29 formed by roll forming a single sheet of material into the web and two chords.

36. The weight bearing element of claim 29 wherein the chord is fabricated from a single continuous sheet.
37. The weight bearing element of claim 29 wherein the cross section of at least one of the two chords, excluding any portion in parallel with and connected to the web, has a shape of a regular or irregular pentagon.
38. The weight bearing element of claim 29 further comprising a fill material in the cavity of at least one of the two chords.
39. The weight bearing element of claim 31 wherein the two chords are substantially parallel chords coupled to opposite sides of the web.
40. The weight bearing element of claim 39 wherein the chord further comprises at least 5 planar sides, each side corresponding to one side of the closed multi-sided figure of the cross-sectional shape of the chord.
42. The weight bearing element of claim 31 wherein the chord has a height and a width, such that the height is greater than the width.
57. The weight bearing element of claim 29 wherein the element is formed from a continuous piece of at least 20 gauge steel.
58. The weight bearing element of claim 29 wherein at least a portion of the flange extends in a direction normal to the span.